

## ARRIVAL DIRECTIONS OF ULTRA-HIGH ENERGY COSMIC RAYS

R.N. Baltrusaitis, G. L. Cassiday, R. Cooper,  
B.R. Dawson, J. B. Elbert, B. E. Pick, K. D. Green,  
S. Ko, D.F. Liebing, C.P. Lingle, E.C. Loh,  
J.D. Smith, P. Sokolsky, and D. Stock  
Physics Department, University of Utah, Salt Lake City,  
UT 84112, USA

## ABSTRACT

The arrival directions of cosmic rays observed by the Utah Fly's Eye detector /1/ have been examined for departures from isotropy. Previous results /2/ published by the Fly's Eye based on 1442 hours of data showed no statistically significant departures from isotropy in galactic coordinates for events above 0.4 eV in energy.

The sensitivity of the Fly's Eye detector has recently been increased by a factor of 2.5 (see session OG.9) as a result of installation of UG-1 optical filters. Since these filters transmit only in the nitrogen fluorescence region (320-380 nm), background tube noise due to random night sky sources is greatly reduced. About 500 hours of data with the filtered Fly's Eye has been accumulated which, in conjunction with the sensitivity increase, approximately doubles our data sample.

We are in the process of analyzing the complete data maple both by the standard methods of searching one-dimensional projections for galactic plane enhancements or gradients, and by searches for two-dimensional clustering.

## References

1. R.N. Baltrusaitis et al., N116A2R, 410s 1985.
2. R.N. Baltrusaitis et al., Ap. J. Lett.,v2\_02, 333, 1986.



Filename: icrc872-40  
Directory: C:\WINDOWS\Desktop\Amy's Papers  
Template: C:\Program Files\Microsoft Office\Templates\Normal.dot  
Title:  
Subject:  
Author:  
Keywords:  
Comments:  
Creation Date: 06/26/01 10:53 PM  
Change Number: 2  
Last Saved On: 07/26/01 4:01 PM  
Last Saved By: user  
Total Editing Time: 7 Minutes  
Last Printed On: 10/09/01 9:17 AM  
As of Last Complete Printing  
Number of Pages: 2  
Number of Words: 214 (approx.)  
Number of Characters: 1,224 (approx.)